had received alive as a present from Dr. Goeldi, of Pará (see P. Z. S. 1898, p. 348), and the anatomy of which would be described by Mr. Beddard in the next number of 'The Ibis.' Such hybrids were said to be not uncommon at Ceará in Brazil, whence the present specimen was obtained, and to be known by the name of "Tahý."

XXXVIII.—Notices of recent Ornithological Publications. [Continued from p. 329.]

61. Agassiz's Report on the Museum of Comparative Zoology at Harvard.

[Annual Report of the Curator of the Museum of Comparative Zoology at Harvard College to the President and Fellows of Harvard College for 1897-98. 8vo. Cambridge, U.S.A., 1898.]

From this Report we regret to learn that Prof. Alexander Agassiz resigned his long-held office of Director of the Museum of Comparative Zoology at Harvard College, Cambridge, U.S.A., at the close of last year. Mr. Agassiz has presented to that Institution all his collections and papers deposited there, with conditions of free access to them during his life. He does not seem at all satisfied with the future prospects of the Museum, believing that the "Natural-History Museums of New York and Chicago, connected as they are with municipalities which deal with them in a most generous and intelligent manner, will soon leave far behind a University Museum depending upon resources which grow annually less with painful regularity." The Department of Mammals and Birds in the Museum, which is presided over by Mr. William Brewster, is stated to have had an "uneventful" year.

62. Annals of Scottish Natural History.

[The Annals of Scottish Natural History, a Quarterly Magazine, with which is incorporated 'The Scottish Naturalist.' No. 29, January 1899, and No. 30, April 1899.]

In the January issue of this quarterly, a list of the birds of the Ballinluig district, Perthshire, by Mr. Bruce Campbell, is followed by a short but interesting article by Mr. William Evans on some eggs ascribed to the Wood-Sandpiper (Totanus glareola), taken in Elginshire in 1853 by the late Mr. C. Thurnall, of Whittlesford, Cambridgeshire. Rev. H. A. Maepherson has a note (with full-page illustration) on the changes of plumage of the Little Gull (Lurus minutus); while among the interesting occurrences may be mentioned the European form of the Hawk-Owl (Surnia ulula) in Aberdeenshire, and Baillon's Crake (Porzana bailloni) in Caithness. A bird shot in Aberdeenshire, and erroneously recorded as a Little Bustard, is shown in the April number to have been a female of Houbara macqueeni by Mr. W. Eagle Clarke, who has already corrected the describer's error in the 'Bulletin' of the British Ornithologist's Club (no. lx. p. xxxvi). Among the occurrences, the most notable is that of a male example of the King-Eider (Somateria spectabilis) shot on the west side of Shetland on February 24th; this bird was exhibited by Mr. Harting at a meeting of the Linnean Society on March 2nd. A specimen of the Lesser Whitethroat (Sylvia curruca) from the Outer Hebrides and an example of the Scandinavian blackbellied race of the Dipper in Shetland also deserve mention.

63. Arrigoni degli Oddi on Venetian Ducks.

[On two Hybrid Ducks in Count Ninni's Collection at Venice. By Dr. E. Arrigoni degli Oddi. Ornis, ix. 1897–98, p. 23.

Ornithological Notes on thirty abnormal-coloured Anatidæ caught in the Venetian Territory. By Prof. E. Arrigoni degli Oddi. *Op. cit.* p. 109.]

These are two papers on the various ducks of the Venetian lagoons and their crosses and varieties, to which the author, as is well known to our readers, has devoted great attention.

64. 'The Auk.'

[The Auk. A Quarterly Journal of Ornithology. Vol. xvi. Nos. 1, 2, January and April 1899.]

The January number of our transatlantic contemporary opens with a paper by Mr. F. M. Chapman on the distribution

and habits of Ammodramus maritimus and its allies, with a coloured plate. Mr. O. B. Warren describes the life of the Canada Jay, with illustrations of its nest and young from photographs. From this phase of country-life we pass to Prof. Gill's discussion of the correct orthography of the generic names Pediocætes and Poocætes. In this case we are quite disposed to agree with Prof. Gill as to the origin of the terms. But as we prefer "grammar" to "priority," although we accept his derivation, we shall write the two generic names as they are spelt above, being quite unconvinced by Dr. Allen's response to Mr. Elliot on the subject of Canon xl. of the A. O. U. Code. Various species and subspecies are described by Messrs. E. W. Nelson and H. C. Oberholser respectively, and will, no doubt, be duly noted in our 'Zoological Record,' Aves; together with the names of Mr. Ridgway's new Fringillidæ. The Report of the A. O. U. Committee on Protection of North-American Birds is well worthy of consideration by those who are anxious to put a stop to traffic in "bird-millinery." In the General Notes are two records of the recent captures of Estrelata hæsitata on the Ohio River, Cincinnati, assuming that the identifications are correct. According to the Ninth Supplement to the A. O. U. Check-List, the Divers, which used to be Colymbide, and became Urinatoride in the Check-List of 1898, have now become Gaviidae. So our Ivory Gull, which was called Gavia alba, now becomes Pagophila alba (Gunnerius); and after their long insistence upon Sterna tschgrava Lepechin, for the Caspian Tern, the A. O. U. has now come round to Sterna caspia Pallas. Respice finem!

In the April number Mr. Outram Bangs reviews the species of Humming-birds found in the Santa Marta region of Colombia, and a coloured frontispiece of Leucuria phalerata is given. Mr. O. G. Libby has an article on the Nocturnal Flight of Migrating Birds. Mr. John Murdoch's Historical Notice of Ross's Roseate Gull (Rhodostethia rosea) will interest a large circle of our readers, for the author has "seen literally thousands" of this species on the wing. He also speaks of "not more than 110 specimens known to be in

existence" of a species which barely boasted a score of known specimens up to the date of the United States Expedition to Point Barrow, on which Mr. Murdoch was the naturalist. He considers that Keenan Island, to the north of Point Barrow, will probably prove to be one of the main breedinggrounds of this beautiful Gull, although colonies doubtless exist on Dr. Nansen's Hvidtenland and in other localities within the circumpolar area. Passing over papers of local interest, Mr. Witmer Stone's article on "Some Philadelphia Ornithological Collections and Collectors, 1784-1850," is of considerable value and full of quaint incidents. instance, when Peale attempted to open his Museum on Sundays the local press was hostile in its criticism, "to counteract which he had a sign prepared for display on the Sabbath, bearing the legend: 'Here the wonderful works of the Divinity may be contemplated with pleasure and advantage. Let no one enter to-day with any other view." The public spirit of Dr. Thomas B. Wilson in purchasing the Massena, Gould, and Boys collections is admirably shown; and, perhaps from a narrow-minded point of view, we may regret that for want of such energy in Europe these magnificent collections crossed the water.

65. Bangs on the Birds of Santa Marta, Colombia.

[(1) On some Birds from Santa Marta, Colombia. By Outram Bangs. Proc. Biol. Soc. Washington, xii. p. 131 (1898).

(2) On some Birds from Pueblo Viejo, Colombia. By Outram Bangs. 1bid. p. 157 (1898).

(3) On some Birds from the Sierra Nevada de Santa Marta, Colombia. By Ontram Bangs. Ibid. p. 171 (1898).]

These three papers, which until recently have escaped our notice, contain an account of the specimens of birds obtained for the author by Mr. W. W. Brown, Jun., who is collecting at Santa Marta, on the north coast of Colombia, and on the celebrated isolated peak of the Sierra Nevada of Santa Marta, which rises to a height of 17,400 feet above the sea-level *.

In the first paper Mr. Bangs writes on a series of 700

^{*} Cf. Simons, Proc. R. G. S. 1879, p. 689.

skins obtained within fifteen miles of Santa Marta, and gives a list of the species, describing, as new species and subspecies, Galbula ruficauda pallens, Melanerpes wagleri sanctæ-marthæ, Dendrocincla olivacea anguina, Sycalis browni, Cyanocompsa concreta sanctæ-marthæ, Arremonops conirostris cauens, Pyranga faceta, Cyclorhis flavipectus canticus, Dacnis napæa, and Merula incompta.

The second paper relates to a collection made by Mr. Brown at Pueblo Viejo*, in the high Sierra Nevada de Santa Marta, in March 1890, and describes as new Elainea browni, Antomolus rufipectus, Buarremon basilicus, and Thryothorus lætus. There was also in it an example of the rare Humming-bird, Anthocephala floriceps, peculiar to this locality.

Mr. Brown's third lot of 300 skins was obtained in May and June 1898 at various localities above 5000 feet in the Sierra. It contained examples of the following species and subspecies described as new:—Neocrex colombianus, Aulacorhamphus lætus, Leucuria (gen. nov. Trochilid.) phalerata, Elainea sororia, Grallaria spatiator, Spinus spinescens capitaneus, Diylossa nocticolor, Merula phæopyga minusculu, and Merula gigas cacozela.

We trust that Mr. Bangs will not fail to put together a complete account of this most interesting ornis when Mr. Brown has finished his work. The last paper on the subject is that by Salvin and Godman in this journal (Ibis, 1879, p. 196).

66. Beal and Judd on the Food of Cuckoos and Shrikes.

[Cuckoos and Shrikes in their relation to Agriculture. The Food of Cuckoos. By F. E. L. Beal, B.S. The Food of Shrikes. By S. D. Judd, Ph.D. Prepared under the direction of C. Hart Merriam, M.D. Bulletin no. 9, U.S. Department of Agriculture, Division of Biological Survey. Washington, 1898. 26 pp.]

This is another of the very useful papers by which a more accurate knowledge of the real food of North-American

^{*} Mr. Bangs gives the elevation of this village at 8000 feet, but in Simons's map (op. cit.) it is marked 3700 feet.

birds is being gradually acquired. In the laboratory of the Biological Survey at Washington 109 stomachs of *Coccyzus americanus* and 46 of *C. erythrophthalmus*, from twenty different States, were examined and found to contain, with one exception, only insect-food—beetles, grasshoppers, caterpillars, &c.—of which full particulars are given by Mr. Beal.

Dr. Judd, who reports on the Shrikes (*Lanius ludovicianus* and *L. borealis*), states that, so far as determined from the examination of 155 stomachs of these birds collected during every month of the year all over the United States, their food consists of mice, small birds, and insects, the last being mainly grasshoppers.

There can be no question, therefore, of the beneficial action on agriculture in North America of both of these groups of birds.

67. 'Bird-Lore.'

[Bird-Lore, a Bi-monthly Magazine devoted to the Study and Protection of Birds. Edited by Frank M. Chapman. Vol. i. No. 1. February 1899.]

We have received a copy of the first number of 'Bird-Lore,' a new popular ornithological magazine edited by Mr. Frank M. Chapman and published at New York by the Maemillan Company. It is to be the organ of the "Audubon Societies" which are now being instituted in many States of the Union for the protection of birds. We are told that every prominent American writer on "birds in nature" has promised to contribute to 'Bird-Lore' during the present year, and we have a good sample of the style of its articles and illustrations in the present number. We need only add that we cordially wish success to the new journal and to the worthy cause it represents.

68. Butler on the Birds of Perak.

[Birds Collected and Observed on the Larut Hills, Perak, March and April 1898. By A. L. Butler, F.Z.S. 8vo. Singapore, 1898.]

Mr. A. L. Butler, F.Z.S., Curator of the State Museum

of Selangor, writes on the birds which he collected on the Larut Hills in February and March 1898. The list includes 113 species, and gives appropriate field-notes as to exact localities and habits. Three new species discovered during this expedition (Cryptolopha butleri, Serilophus rothschildi, and Gecinus rodgeri) have been previously described at Meetings of the B.O.C. Mr. Butler's collection is deposited in the Tring Museum.

69. Campbell on the Nests and Eggs of the Meliphagidæ.

[Nests and Eggs of the Honey-eaters or Meliphagous Birds of Australia. By A. J. Campbell, F.L.S. (Austral. Assoc, Adv. Science, Session 1898.) Sydney.]

Mr. A. J. Campbell, who, as will be seen below, is engaged in preparing an illustrated work on the nests and eggs of the Birds of Australia, placed before the recent meeting at Sydney of the Australasian Association for the Advancement of Science a treatise on the nesting of the Honey-eaters—one of the most varied, numerous, and attractive families of the Australian ornis. It contains upwards of 70 Australian species, the nests and eggs of which, with few exceptions, are here described.

70. Clark on the Feather-tracts of the North-American Gallinæ.

[The Feather-tracts of North-American Grouse and Quail. By Hubert Lyman Clark, Ph.D. Proc. U.S. Nat. Mus. xxi. p. 641.]

Dr. Clark has made a eareful study of the pterylosis of the Gallinaceous Birds of North America, and gives us the results arrived at in this well-written memoir. Through the kind assistance of his friends he has been able to examine the feather-tracts in 18 species of these birds, representing all the North-American genera. The Odontophorinæ are well distinguishable from the Tetraoninæ as regards their pterylosis, as are also the 5 generally recognized genera of the former and the 7 of the latter group from each other. The

Odontophorinæ show a well-developed claw on the thumb, which is absent in the Grouse.

The pterylosis of the Turkey (Meleagris) has been well figured by Nitzsch. There are 18 rectrices and only 18 secondaries, and a prominent claw on the thumb. Its position is probably nearest to the Phasianidæ. The single representative of the Cracidæ in North America (Ortalis) is obviously far remote from the Galline type as regards its feathering, as might have been anticipated from other points in its structure.

It would be very desirable that some ornithologist should take up the examination of the pterylosis in the genera of Gallinæ found in other parts of the world, and thus arrive at some good general results as to their classification. Meanwhile we must be thankful to Dr. Clark for this valuable contribution to a little-worked subject.

71. Evans on Birds.

[Birds. By A. II. Evans, M.A., Clare College, Cambridge. London : Macmillan & Co., 1899. 1 vol., 635 pp.]

Mr. Evans's volume on the Class of Birds is the ninth of the series of ten which, when complete, will form the 'Cambridge Natural History.' When considering it, we should recollect that the plan of the whole series is to form a "standard Natural History, accurate enough to be of use to the student, and at the same time popular enough for the general reader who desires trustworthy information as to the structure and habits of all the members of the Animal Kingdom." This is a very difficult ideal, and we cannot feel surprised if it has not been quite earried out even by the accomplished author of the present volume. At the same time it will be allowed that Mr. Evans has produced a book full of concentrated essence of information on birds, especially as regards their outer structure and habits, and one that we can cordially recommend as a work of reference to all students of ornithology.

As his system, the author adopts that of Dr. Gadow "with

some slight modifications." We venture to suggest that a few more alterations might have been well introduced. place the "Columbæ" under the order "Charadriiformes," the "Psittaci" among the "Cuculiformes," and the "Striges" in the "Coraciiformes" cannot be justified even in obedience to such a great authority as Dr. Gadow. If there are "Orders" at all in the "Class" of Birds, the first two of these groups are entitled to that rank; and in our opinion the "Striges" have also equal claims to such a position, whether external or anatomical characters are considered. Any tyro in ornithology would recognize a Pigeon, but it would be difficult to make him understand its association in the same group as Gulls and Plovers. Again, there can be no doubt about the low position of the Penguins, with their continuous plumage and incompletely-fused metatarsals. They should go below the Colymbiformes, not above them. Nor can we allow that the Tinamous have any business above the highly-organized Birds of Prey. They are "semi-Ratites" in spite of their sternum, and should remain at the bottom of the Carinate series.

Mr. Evans has rightly gone, in the majority of cases, to the most recent authority for information on the group treated of, for it is impossible for one mind to grasp such a multitude of particulars. But in the case of the Cranes he seems to have missed consulting Mr. Blaauw's Monograph, having included in his list such untenable species as *Grus lilfordi* and *Balearica gibbericeps*. We are glad to see that Mr. Evans has given full family-rank to the Hoopoes (Upupidæ), which, although no doubt closely allied to the Hornbills, have every claim to it. We wish he had done the same in the case of the Honey-guides (Indicatoridæ), for these birds, although coming near the Barbets (as first pointed out 'Ibis,' 1870, p. 176), should be recognized as forming a quite distinct family.

As regards the illustrations in the present volume, Mr. Lodge's work is good, and we should have been glad to have seen more of it. We also recognize some familiar objects in a series of wood-engravings by Smit (from 'Nature'). These blocks were prepared by that well-known artist, from

specimens living in the Zoological Society's Gardens, for the illustration of a special series of articles upon new additions to the Society's Menagerie. Some acknowledgment might have been made of this fact, and Smit's name should, in our opinion, have been mentioned.

72. Girtanner on the Bearded Vulture in Switzerland.

[Die Lämmergeier in den Schweizeralpen und in den Zeitungen. Von Dr. A. Girtanner.]

This little paper, which will be of special interest to students of the European Ornis, gives us the verdiet of a well-known authority that *Gypaëtus barbatus* must be pronounced to be extinet in Switzerland, though it may, of course, again occur there accidentally. The report in newspapers of its recent occurrences are all unreliable. An old mateless female killed by poison on the Bietschhorn in 1886, and a specimen captured in Canton Ticino in 1869, seem to have been the last two individuals procured, though there are reports of Bearded Vultures having been seen since.

73. Hartert on Birds from Uganda and Unyoro.

[On the Birds collected by Dr. Ansorge during his recent stay in Africa. By Erust Hartert. Appendix to 'Under the African Sun,' by W. J. Ansorge. London: Heinemann, 1899.]

To Dr. Ansorge's interesting account of his experiences in Uganda and British East Africa, as an Officer in the Medical Service of the Government (which we recommend all our friends interested in these countries to read), Mr. Hartert contributes an Appendix on the birds which Dr. Ansorge collected in Uganda, Unyoro, and on the route up from Mombasa and down again, which he traversed several times.

The birds collected by Dr. Ansorge, which are all deposited in the Tring Museum, are referred to 216 species, of which Numida ansorgei, Colius leucotis berlepschi, Cinnyris ansorgei, and Pyromelana ansorgei are characterized as new. Many critical notes on other species are given, and the

exact localities and dates are added, so that the 'Appendix' is of considerable scientific importance. Some good species of Francolins (Francolinus gedgei and F. uluensis) are in the list, also a rare Woodpecker (Campothera tæniolæma) from Uganda. On a coloured plate by Keulemans are figured Cinnyris ansorgei and Pyromelana ansorgei.

74. Hartlaub on Birds from China and the Philippines.

[Zwei Beiträge zur Ornithologie Asiens. Von Dr. G. Hartlaub in Bremen. Abh. nat. Ver. Bremen, xvi. 1898, p. 245.]

Our friend, the veteran ornithologist of Bremen, sends us copies of two more articles, under the title above given, relating to the collections of the late Herr Schmacker, which have been bequeathed to the well-known Museum of that city. The first of these contains additional information on the birds of Hainan (cf. Ibis, 1898, p. 302); the second relates to the ornithology of Mindoro in the Philippines, to which Schmacker on one occasion paid a short visit.

In the first paper Dr. Hartlaub writes of 20 species, mostly from Hainan, and describes as new Siphia styani and Temnurus oustaleti. The latter is what Mr. Styan and Dr. Hartlaub have previously called Temnurus niger. We do not quite understand why Dr. Hartlaub does not adopt Mr. Styan's suggestion to call it Temnurus schmackeri (cf. Ibis, 1893, p. 426) if it really requires a new name, which seems by no means certain. The Bremen Museum is fortunate in possessing the unique specimen of the wonderful Arboricola ardens.

Of the birds of Mindoro Dr. Hartlaub has compiled a complete list, so far as they are yet known, embracing the names of 177 species. He adds notes and remarks on 17 species represented in Herr Schmacker's collection now at Bremen.

An Appendix to this memoir treats of the difficult question of the Owls of the genus *Ninox*.

75. Harvie-Brown on a Colour-Code for Zoogeography.

[On a Correct Colour-Code, or Sortation Code in Colours. By J. A. Harvie-Brown, F.R.S.E. Proc. Intern. Congr. Zool. Cambr. 1898, p. 155.]

This is an abstract of a communication made to the International Congress of Zoology at the meeting at Cambridge last year. Mr. Harvie-Brown recommends the following colour-code for zoogeographical purposes:—

- 1. Arctic Realm, White.
- 2. Antarctic Realm, Grey.
- 3. Palæarctic Region, Red.
- 4. Nearctic Region, Brown.
- 5. Neotropical Region, Blue.
- 6. Ethiopian Region, Black.
- 7. Oriental Region, Green.
- 8. Australian Region, Yellow.
- 9. Madagascarian Subregion, Purple.

A set of special labels for Subregions is added. These are of course of minor importance, but as regards the Regions we think that Mr. Harvie-Brown's proposals are well worthy of acceptance, and the Madagascarian (or Malagasy) Subregion might certainly have a colour to itself, for which "Purple," as suggested, may do very well.

It is convenient to know that Messrs. Hugh Stevenson and Sons (Bridge Street, Ardwick, Manchester) are ready to supply pamphlet-cases, book-protecting cases, and other boxes covered according to "Harvie-Brown's Correct Colour-Code."

76. 'Irish Naturalist.'

[The Irish Naturalist, a Monthly Journal of general Irish Natural History. Edited by G. H. Carpenter and R. Lloyd Praeger. Vol. vii. No. 12; Vol. viii. Nos. I-4. Dublin: Eason & Son, Limited, 1898-99.

In the January number Mr. R. J. Ussher's interesting account of his further discoveries of the remains of the Great Auk (Alca impennis) in the kitchen-middens of the South of Ireland is followed by descriptions by Mr. W. J. Knowles of bones of this extinct bird from Whitepark Bay, Co. Antrim, in the North; so that the Garefowl must have been at one

time a thoroughly Irish species. Both these papers are illustrated. Mr. Barrett-Hamilton announces that some birds' bones from the Ballynamintra and Shandon caves have been identified as those of the Black Grouse (Tetrao tetrix) and the Ptarmigan (Lagopus mutus); and this is especially interesting, inasmuch as these species are not known to have been found in Ireland within historic times. Moreover, attempts to introduce these birds have failed, as stated by the same author in a paper in the February number. Mr. R. J. Ussher points out that a supposed Nightingale shot near the Old Head of Kinsale in September 1876, and for more than twenty years exhibited as such in the Museum of Queen's College, Cork, is really an example of the Rufous Warbler (Aedon galactodes); and this occurrence coincides with that of the bird obtained at Slapton, South Devon, on the 12th of October of the same year, 1876. In the March and April numbers there are no ornithological articles.

77. Jhering on the Birds of S. Paulo, Brazil.

[As Aves do Estado de S. Paulo. Por H. von Jhering. Rev. Mus. Paul. iii. p. 113 (1898).]

The promised memoir on the birds of the Province of São Paulo in Southern Brazil, which was mentioned by Dr. H. v. Jhering in his letter to us ('Ibis,' 1898, p. 456), has been published in the third volume of the 'Revista do Museu Paulista'—a periodical lately established and conducted by the same energetic naturalist. It makes an important addition to our knowledge of the South Brazilian Ornis.

After some preliminary remarks on previous authorities on the birds of S. Paulo, and the technical terms proposed to be employed in describing them, the author gives us his synopsis of the species as yet known to occur within the limits of the State—590 in all, which (nearly according to the B.M. Catalogue) he arranges in the following Orders:—

Passeres	292	Columbæ	11
Macrochires	49	Gallinæ	7
Piei	17	Paludicolæ	14
Coccyges	30	Limicolæ	22
Psittaci	24	Gaviæ	12
Striges		Tubinares	4
Accipitres	43	Pygopodes	3
Steganopodes	4	Impennes	1
Herodiones	24	Crypturi	10
Anseres	8	Rheæ	1

Short descriptive notes are added to the name and selected synonyms of each species, and the locality in S. Paulo in which it occurs is stated, but no field-notes as to habits and nesting are given. Two (rather doubtful) species are described as new—Chrysotis schmidti, from between the Rio Morto and Itapura, and Crax sulcirostris, from the eastern part of the State, concerning both of which further information would be desirable. We are surprised to see Palamedea cornuta in the list, as we had believed it to be strictly an Amazonian species.

From the concluding remarks in this memoir, and from a paper recently communicated to the Zoological Society of London, we gather that according to Dr. v. Jhering's views three elements are to be found in the avifanna of S. Paulo—a Northern, a Southern, and a Central. The Central element, which is that of the Campos of the interior, embraces about 70 species; the remainder, after deducting about 200 species of extended distribution, being assignable to the Northern or Southern Faunas. The former of these is represented by species of Donacobius, Hylophilus, Dacnis, Calliste, Nemosia, Pipra, &c.; the latter by species of Poospiza, Cyanotis, Phlæocryptes, Anumbius, and other well-known Argentine forms.

78. Madarász on a new Ground-Thrush.

[Description of a new Ground-Thrush (Geocichla frontalis). By Dr. Julius v. Madarász. Term. Füz. xxii. p. 111.]

This supposed new species is based upon a pair of birds in the Hungarian National Collection, which were acquired SER, VII.—VOL. V. 21

two years ago along with other skins from Celebes, without any more definite locality. *Geocichla frontalis* appears to be most nearly related to *G. erythronota* Sclater, but to differ in its black forehead; it may, however, possibly be only a fully adult male of the latter species.

79. Nehrkorn's Catalogue of his Egg-collection.

[Katalog der Eiersammlung, nebst Beschreibungen der aussereuropäischen Eier. Von Adelph Nehrkorn. 8vo. Braunschweig, 1899.]

The great Collection of Eggs of Herr Nehrkorn, of Riddagshausen, near Brunswick, is known to many English ornithologists, as is likewise the kind hospitality of its owner. Herr Nehrkorn has long been engaged on an account of his collection, and has now brought his labours to a successful conclusion in the volume before us.

The collection, which is one of the largest, if not quite the largest on the Continent, and is surpassed in extent only by that of the British Museum *, and perhaps by that of Mr. Philip Crowley, in England, contains examples of the eggs of 3546 species of birds. These are arranged and named in this work according to the British Museum 'Catalogue of Birds,' and references are given to the volumes and pages of the Catalogue throughout the list. Besides the name of the species the general locality is given, but the number of specimens of each species and their exact localities are only occasionally inserted. Short but most useful descriptions are added of the eggs of exotic species, and at the head of the genera and families the general character of the eggs of the group is in many cases summarized. Among the special rarities of the collection we observe eggs of Careba cyanea from Amazonia (of an almost uniform black); of Lophotriccus squamatus (most beautifully zoned with rich red); of Eurystopodus nigripennis (a Goatsucker from the Solomon Islands); of a Toucan (Pteroglossus flavirostris), the first of this family described, so far as we know; and of two Touracous. These eggs have attracted our notice on turning over the pages of

^{*} Cf. 'Ibis,' 1897, p. 486.

the list, but there are, no doubt, many others of equal importance.

Finally, four beautifully drawn and excellently coloured plates contain figures of 50 of the principal novelties of the Nehrkorn Collection. We are sure that all our oological friends will be charmed with this well-planned and well-executed piece of work.

80. North on the Nesting of Australian Birds.

[Descriptions of the Nests and Eggs of Four Species of Australian Birds. By Alfred J. North, C.M.Z.S. Proc. Linn. Soc. N. S. Wales, 1898, p. 380.]

Mr. North continues his notes on the nests and eggs of Australian Birds, and now describes those of *Ephthianura* crocea, *Ptilotis macleayana*, and *Myzomela erythrocephala* from Northern Australia, and the eggs of *Lophophaps ferruginea* obtained by the Calvert Expedition near Fitzroy River, North-west Australia.

81. North and Keartland on the Birds collected by the Calvert Expedition.

[List of Birds collected by the Calvert Exploring Expedition in Western Australia. By Alfred J. North, C.M.Z.S. With Field-notes by G. A. Keartland, Naturalist to the Expedition. Trans. R. Soc. S. Australia, 1898, p. 125.]

Mr. North gives us an account of the collection made by Mr. Keartland, chiefly at a camp situated at the junction of the Fitzroy and Margaret rivers, about 45 miles from Derby in North-western Australia, during the Calvert Expedition, and deposited in the South-Australian Museum. It consists of 167 specimens, belonging to 59 species, besides nests and eggs. The field-notes of the collector are added under the head of each species. Among the chief rarities are specimens of Spathopterus alexandræ and Ptilotis keartlandi. Field-notes on 133 other species, of which specimens were observed by Mr. Keartland but not brought back, are added.

82. Reichenow on the Birds of the Irangi Expedition.

[Die mittleren Hochländer des nördlichen Deutsch-Ost-Afrika. Wissenschaftliche Ergebnisse der Irangi-Expedition 1896-97, nebst kurzer Reisebeschreibung. Im Auftrage der Irangi-Gesellschaft herausgegeben von dem Führer der Expedition C. Waldemar Werther. 4to. Berlin: Hermann Paetel, 1898.]

Among the many valuable scientific contributions to Herr Premier-Lieutenant C. Waldemar Werther's recently published narrative of the 'Irangi-Expedition' (during which the northern highlands of the interior of German East-Africa were explored) is a memoir by Prof. Reichenow on the birds collected during the expedition. The specimens are referred to about 45 species, amongst which one (Pyromelana wertheri) was new to science, but had been already described (Orn. Monatsb. 1897, p. 160). In the course of the remarks given in the present volume Terpsiphone perspicillata suahelica, from East Africa, and T. p. plumbeiceps and Melanobucco torquatus congicus, from Western Africa, are designated as new subspecies.

At the close of his account of the collection made during the Irangi Expedition Prof. Reichenow gives a list of about 70 species of birds to be added to the avifauna of German East Africa since the publication of his 'Vögel Deutsch-Ost-Afrikas' in 1894.

83. Schalow on Birds from Chile and Patagonia.

[Die Vögel der Sammlung Plate. Von Herman Schalow. Zool. Jahrb., Suppl. iv. Heft 3, 1898.]

In this memoir we have an account of the birds collected by Prof. Plate in Chile, Patagonia, Tierra del Fuego, and the Falkland Islands, and transmitted to the Berlin Museum. From localities so well worked it was not to be expected that novelties would be procured; but the series of 335 specimens, which are referred to 148 species, gives ample opportunities for the valuable notes and critical remarks of Herr Schalow. Several additions are made to the lists of the birds of Chile and Patagonia, and important accessions to the ornis of Tierra del Fuego are reported. We do not, however, consider that it has yet been conclusively shown that the northern Waders (Numenius hudsonicus, Limosa hudsonica, Tringa canutus, T. fuscicollis, &c.), which are occasionally found in Patagonia in the summer, actually breed there. That they occur there in the breeding-season is no proof of this at all, as we know by experience in the Old World. Let us wait until some diligent field-ornithologist has been out there and brought home their nests and eggs.

The second portion of Herr Schalow's memoir is devoted to an accurate revision of the birds of Juan Fernandez, where about 10 species are now known to occur.

84. Sharpe's Wonders of the Bird-world.

[Wonders of the Bird-world. By R. Bowdler Sharpe, LL.D., F.L.S., &c. With Illustrations by A. T. Elwes. 8vo. London: Wells Gardner, Darton & Co., 1898.]

Dr. Bowdler Sharpe, being obliged to give up "the strain of speaking in public," has put the gist of his well-known lectures on the curiosities of bird-life into the volume now before us, which we are sure will be much appreciated by all who are interested in birds and their ways of life. Chapters are given on birds wonderful both in shape and in decoration, on their playing-grounds, their nests and eggs, their courtship and dances, their mimicry and protective resemblances in colour, their migration and their geographical distribution. Many of the particulars on these subjects are, of course, well-known stories; but even the most experienced authority on birds will not fail to gather fresh information from these well-filled pages. The illustrations, drawn by Mr. A. T. Elwes, are numerous and mostly well executed, though exception might be taken to some of them. We are specially pleased with the "snggested restoration of Phororachus" from Mr. Pycraft's sketch and with the "Wood-Hoopoes and Cobra," not to mention the ejection of its companion-nestlings by the young Cuckoo, taken from Mrs. Hugh Blackburn's spirited sketch.

The systematic review of the orders and families of birds,

with special indications of their nesting-habits and eggs, makes an interesting chapter which might be almost indefinitely expanded. But it is not quite correct to say that in all the Ratitæ incubation is performed by the male bird only, as there is, we believe, no doubt that in the case of the Ostriches both parents sit in turns.

No more attractive present could, in our opinion, be given to a youthful ornithologist than a copy of 'Wonders of the Bird-world.'

85. Shufeldt on the Classification of Birds.

[Observations on the Classification of Birds. By Dr. R. W. Shufeldt. Proc. Ac. Nat. Sci. Philad. 1898, p. 489.]

Dr. Shufeldt discusses a great subject in a few pages, and promulgates several points of doctrine that we generally approve, especially as regards the worthlessness of single anatomical characters in avian anatomy. But we do not agree that the Loons and Grebes have much to do with the Pelicans; and we wish that Dr. Shufeldt would not write "affined," as there is no such word in the English language.

86. Stone on the Moulting of Birds.

[The Molting of Birds, with special reference to the Plumages of the Smaller Land-Birds of Eastern North America. By Witmer Stone. Proc. Ac. Nat. Sci. Philad. 1896, p. 108.]

Our attention has been called to the fact that the receipt of a copy of Mr. Witmer Stone's paper on the moult of birds, published in 1896, was acknowledged, but that the memoir was never reviewed. We regret that this important treatise on a subject of great interest was overlooked, but can now only say that it embraces the results of long and careful studies on this difficult question, and should be consulted by all who are interested in the moulting of birds. Mr. Stone is a strong opponent of the theory of the direct change of colour in feathers without moult, advocated by Schlegel, Gätke, and many other well-known ornithologists.